

Appl. No. 09/281,710
Amdt dated July 12, 2003
Reply to Office Action of February 12, 2003

IN THE CLAIMS

Claims 1 and 4-18 are presented below:

Claim 1. (Currently Amended) An external cavity laser for oscillating laser light through a connector, comprising:

a fiber Bragg grating section formed of an optical fiber having a Bragg wavelength of light reflected by a grating adjusted to a given wavelength;

a laser light emitting device that generates light, and that is optically coupled to the fiber Bragg grating section to ensure input and output of the light, said laser light emitting device including a reflective surface for reflecting the generated light;

a cavity that is formed between by the laser light emitting device and the grating, and that resonates the light between the reflective surface of the laser light emitting device and the grating, thereby oscillating a laser beam having a given oscillation wavelength;

a connector that outputs the light oscillated by the cavity, said connector being a first connector provided on an optical path extending from the laser light emitting device, and intercepting means for intercepting waves reflected from the connector;

wherein the fiber Bragg grating section is located on the optical path between the laser light emitting device and the connector; and

wherein the intercepting means is located on the optical path between the fiber Bragg grating section and the connector.

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Claim 2. (Previously Canceled).

Claim 3. (Previously Canceled).

Claim 4. (Previously Added). The external cavity laser according to claim 1, wherein the intercepting means comprises an isolator.

Claim 5. (Previously Added). The external cavity laser according to claim 1, wherein the intercepting means comprises a circulator.

E' Claim 6. (Previously Added). The external cavity laser according to claim 1, wherein the connector comprises a physical connector.

cnt. Claim 7. (Previously Added). The external cavity laser according to claim 1, wherein the connector comprises a superphysical connector.

Claim 8. (Previously Added). The external cavity laser according to claim 1, wherein the connector comprises an angled physical connector.

Claim 9. (Previously Added). The external cavity laser according to claim 1, wherein a relative intensity of noise (RIN) less than -130 dB/Hz is maintained in a transmission band having frequencies equal to or less than 10 GHz.

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Claim 10. (Previously Added). The external cavity laser according to claim 1, wherein a relative intensity of noise (RIN) less than -150 dB/Hz is maintained in a transmission band having frequencies equal to or less than 10 GHz.

Claim 11. (Currently Amended). An external cavity laser for oscillating laser light through a connector, comprising:

a fiber Bragg grating section formed of an optical fiber having a Bragg wavelength of light reflected by a grating adjusted to a given wavelength;

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a laser light emitting device that generates light, and that is optically coupled to the fiber Bragg grating section to ensure input and output of the light, said laser light emitting device including a reflective surface for reflecting the generated light;

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a cavity that is formed ~~between~~ by the laser light emitting device and the grating, and that resonates the light between the reflective surface of the laser light emitting device and the grating, thereby oscillating a laser beam having a given oscillation wavelength;

a connector that outputs the light oscillated by the cavity, said connector being a first connector provided on an optical path extending from the laser light emitting device; and

an intercepting element for intercepting ~~reflected waves~~ reflected by ~~from~~ the connector; wherein the fiber Bragg grating section is located on the optical path between the laser light emitting device and the connector; and

wherein the intercepting element is located on the optical path between the fiber Bragg grating section and the connector.

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Claim 12. (Previously Added.) The external cavity laser according to claim 11,
wherein the intercepting element comprises an isolator.

Claim 13. (Previously Added.) The external cavity laser according to claim 11,
wherein the intercepting element comprises a circulator.

Claim 14. (Previously Added.) The external cavity laser according to claim 11,
wherein the connector comprises a physical connector.

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cut. Claim 15. (Previously Added.) The external cavity laser according to claim 11,
wherein the connector comprises a superphysical connector.

Claim 16. (Previously Added.) The external cavity laser according to claim 11,
wherein the connector comprises an angled physical connector.

Claim 17. (Previously Added.) The external cavity laser according to claim 11,
wherein a relative intensity of noise (RIN) less than -130 dB/Hz is maintained in a
transmission band having frequencies equal to or less than 10 GHz.

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cont.
Claim 18. (Previously Added.) The external cavity laser according to claim 11,
wherein a relative intensity of noise (RIN) less than -150 dB/Hz is maintained in a
transmission band having frequencies equal to or less than 10 GHz.
